HN

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,175	05/23/2001	Matthias Kehder	01-203	9628

7590 03/14/2005

Barry L. Kelmachter
BACHMAN & LaPOINTE, P.C.
900 Chapel Street, Suite 1201
New Haven, CT 06510-2802

EXAMINER	
HIRL, JOSEPH P	
ART UNIT	**PAPER NUMBER**
2121	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/863,175	KEHDER ET AL.	
	Examiner	**Art Unit**	
	Joseph P. Hirl	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-34,36-41 and 43-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-34,36-41 and 43-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered January 10, 2005 for the patent application 09/863,175 filed on May 23, 2001.

2. All prior office actions are fully incorporated into this office action by reference.

Status of Claims

3. Claims 1, 7, 8, 15, 20, 28, 34, 36 and 38-41 are amended. Claims 6, 35 and 42 are cancelled. Claims 1-5, 7-34, 36-41 and 43-48 are pending. In the applicant's response of January 10, 2005, the applicant on page 15, line 5, stated that Claims 1-48 are pending. Applicant should confirm in the response to this office action that claims 1-5, 7-34, 36-41 and 43-48 are pending.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-5, 7-34, 36-41 and 43-48 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The invention must be embodied in a technological art, environment or machine which would result in a

practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Specifically, the applicant has stated in the instant response @ page 19, item 16., line 5 that "there is a degree of uncertainty as to the final product." From the perspective of 35 USC 101, this means that the invention will not manifest the requirement of concreteness. Concreteness means repeatability and if the invention is implemented several times, there will be a different result for each operation.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 1-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recite the intention of developing a predictive model. Such a predictive model is based on the premise of at least one independent variable that identifies a single dependent variable. The detailed description of the preferred embodiments, (specification, page 9 through page 34 including the related drawings) identifies coding

and Fig. 6 illustrates a system configuration but the details involving how one steps from the chromosomes to a fully descriptive model are not identified in an integrated manner and such step is non trivial. Specifically, if the model is to be of the form $y = \tan^{-1}(k_1 x_1^{2.475}) + k_2 x_2^{34.475} + k_3 x_3^{247.5} + \mathrm{abs}(k_4 x_4^{3.656}) + k_4$ where k_i are constants, x_i are independent variables and y is the dependent variable, the full process identification which includes all elements of functionality and integration has not been disclosed such that one of ordinary skill in the art could replicate the invention without undue experimentation.

Product by Process Rejection

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims1-5, 7-34, 36-41 and 43-48 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over ACM 0001-0782, referred to as **Michalewicz**).

Concerning applicant's computer implemented process for developing a model which predicts the value of a single dependent variable based on the value of at least one independent variable comprising the creation of chromosomes, determining fitness of each chromosome and populating a next generation of chromosomes by cloning, crossover and mutating, Michalewicz teaches:

> Genetic algorithms represent a class of adaptive algorithms whose search methods are based on simulation of natural genetics. They belong to the class of probabilistic algorithms; yet, they are very different from random ones, as they combine elements of both directed and stochastic search. Also, they are superior to hill-climbing methods, since at any time a GA provides for both exploitation of the best solutions, and exploration of the search space; because of this, GAs are also more robust that existing directed search methods. Another important property of such genetic based search methods is their domain-independence.
>
> In general, a GA performs a multi-directional search by maintaining a population of potential solutions and encourages information formation and exchange between these directions. This population undergoes a simulated evolution: at each generation the relatively "good" solutions reproduce, while the relatively "bad" solutions die. To distinguish between different solutions we need some evaluation function which plays the role of an environment.
>
> The structure of a simple genetic algorithm is shown in Figure 1. During iteration t, the genetic algorithm maintains a population of potential solutions (called chromosomes following the natural terminology) $P(t) = \{x^t_1, \ldots, x^t_n\}$. Each solution x^t_i is evaluated to give some measure of its "fitness." Then, a new population (iteration t + 1) is formed by selecting the more fitted individuals. Finally, random members of this new population undergo reproduction by means of crossover and mutation-to form new solutions.
>
> Crossover combines the features of two parent chromosomes to form two similar off-spring by swapping corresponding segments of the parents. For example, if the two parents are $[v_1, \ldots, v_m]$ and $[w_1, \ldots, w_m]$ (with each element called a gene), then crossing the chromosomes after the kth gene ($1 <= k <= m$) would produce the offspring $[v_1, \ldots, v_k, w_{k+1}, \ldots, w_m]$ and $[w_1, \ldots, w_k, v_{k+1}, \ldots, v_m]$ The intuition behind the applicability of the crossover operator is information exchange between different potential solutions.
>
> Mutation arbitrarily alters one or more genes of a selected chromosome by a random change with a probability equal to some mutation rate. The intuition behind the mutation operator is the induction of some extra variability into the population.
>
> A genetic algorithm for a particular problem must have the following five components:

• A genetic representation for potential solutions to the problem,

• A way to create an initial population of potential solutions,

• An evaluation function that plays the role of the environment, rating solutions in terms of their "fitness",

• Genetic operators that alter the composition of children during reproduction,

```
procedure genetic algorithm
begin
    t=0
    initialize P(t)
    evaluate P(t)
    while (not termination-condition) do
    begin
        t=t+ 1
        select P(t) from P(t - 1)
        recombine P(t)
        evaluate P(t)
    end
end
```

Figure 1. A simple genetic algorithm.

• Values for various parameters that the genetic algorithm uses (population size, probabilities of applying genetic operators, etc.).

The theoretical foundations of genetic algorithms rely on a binary string representation of solutions and on the notion of a schema (see e.g. [14])-a template allowing exploration of similarities among chromosomes. In a population of size n of chromosomes of length m between 2^m and $n - 2^m$different schemata may be represented; at least n 3 of them are processed usefully-Holland has called this property an implicit parallelism, as it is obtained without any extra memory/processing requirements.

A growth equation for schemata shows that selection increases sampling rates of the above-average schemata, and that this change is exponential. However, no new schemata (not represented in the initial t = 0 sampling) can be formed, which prohibits the application of selection alone. This is exactly why the crossover operator is introduced-to enable structured yet random information exchange. Additionally, the mutation operator introduces greater variability into the population. It has been shown (e.g. [8]) that the negative effect of these two operators on the growth of a schema is minimal for a specific kind of schemata-called the building blocks. Therefore, the coding of a problem should encourage the formation of such blocks.

For several reasons (simplicity of analysis, the elegance of operators, requirements for speed), the binary string representation has dominated genetic algorithms research. However, the "implicit parallelism" result does not depend on the use of bit strings (see [1])-hence it may be worthwhile to experiment with richer data structures and other "genetic" operators. This may be important in particular in the presence of nontrivial constraints to the problem.

Michalewicz @ pages 2 and 3.

The applicant has disclosed a product (computer implemented prediction model) developed from a process (methodology). In re Brown, 459, F. 2d 531, 535, 173 USPQ 685, 688, (CCPA 1972) applies.

Response to Arguments

11. Applicant's arguments filed on January 10, 2005 related to claims 1-5, 7-34, 36-41 and 43-48 have been fully considered but are not persuasive.

In reference to Applicant's argument:

The sole remaining rejection is the rejection under 35 U.S.C. 112, first paragraph. The Examiner in paragraph 5 states that the claims recite the intention of developing a predictive model. The Examiner goes on to aver that the details involving how one steps from the chromosomes to a fully descriptive model are not identified in an integrated manner and such step is not trivial. while the Examiner goes on to conclude that one of ordinary skill in the art could replicate the invention without undue experimentation, the Examiner has not made out a prima facie case of non-enablement. In particular, the Examiner has not indicated why one of ordinary skill in the art having the step by step teachings contained in the specification and drawings could not make and use the claimed invention, particularly the claimed method and the claimed system. As stated in In re Armbruster, 185 USPQ 152, 153 (CCPA 1975), quoting from In re Marzocchi, 169 USPQ 367, 369-70 (CCPA 1971), "it is incumbent upon the Patent Office, whenever a rejection on this basis [lack of enablement] is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Here, the Examiner has not put into the record any evidence or reasoning as to why one could not perform the claimed method and/or use the claimed system. Similarly, the Examiner has not provided any reason why one could not make and/or use the chromosome which is set out in claims 41 and 43 - 48. In Applicant's opinion, the specification contains sufficient guidance so that one of ordinary skill in the art could make and use the claimed invention without undue experimentation. Even if some considerable experimentation were needed, and Applicants believe none is needed, such experimentation would be permissible. See Ex parte Jackson, 217 USPQ 804, 807 (BPAI 1982); also see Hybritech, Inc. v. Monoclonal Antiodies, Inc., 231 USPQ 81, 94 (Fed. Cir. 1986). Where a specification, such as the instant one, provides guidance in selecting parameters that would yield the claimed result as well as a lot of other details, it is fair to conclude that the experimentation required to make a particular embodiment is not "undue". See In re Colianni, 195 USPQ 150, 153 (CCPA 1977); also see In re Wands, 8 USPQ2d 1400, 1406 (Fed. Cir. 1988).

Examiner's response:

See p 13. below See p 5. above. In the First Office Action, dated November 13, 2003, page 3, lines 8-13, a specific "show me" example was cited by the examiner that

would require undue experimentation to resolve using the applicant's disclosure. In the applicant's response of May17, 2004, (TC 2100 May 21, 2004), the applicant choose to ignore the Examiner's "show me" example and discuss parts of the specification without integrating such discussion into a prediction example based on at least one independent variable. No reference was made to the "show me" example. The Examiner expressed concern and repeated the "show me" example in the Final Office Action dated August 16, 2004, on page 3, lines 6-11. Once more the applicant choose to ignore the Examiner's "show me" example in the applicant after final response dated November 18, 2004. The Examiner recited the request for the "show me" example in the Advisory Action of November 30, 2004, asking the applicant for a specific example. In the Request for Continued Examination filed by the applicant on January 10, 2005, the applicant was again silent on the "show me" response. The MPEP @ 714.02 requires full replies to each office action. The Examiner is now placing the Applicant on notice that in the response to this office action, the applicant must respond fully to the "show me" example cited by the Examiner. From the applicant's silence on the "show me" example, the Examiner asserts that this is sufficient reason to support the Examiner's rejection of claims 1-41 under 35 USC 112, first paragraph.

In reference to Applicant's argument:

One point which the Examiner does not seem to understand is that the digital chromosomes directly become an equation when the zeros and ones of binary are transformed into base 10 numbers. This transformation of binary to base 10 is the basis of all modern digital computer technology and is therefore trivial. Segment boundaries as depicted in figures 1 and 5 define the start and end points of specific terms in the equation (e.g. signs and coefficients, inclusion and exclusion factors, outlier trimming parameters, etc. The chromosome is the equation written in binary code. Note that figure 3 in the application shows an example of binary to base 10 conversion.

Examiner's response:

One of ordinary skill in the art recognizes that in a genetic algorithm, the chromosome is written in binary code. Equations are typically in the form of variables, constants, operators, etc. such as the simplistic example of "x + y = z". One needs to know what numeric base under which the calculations will be performed but merely converting from one numeric base to another numeric base is but a preparation to the execution of an equation. Any equation can be executed in any numeric base just as long as the base is known and consistency is maintained with the variables (computers operate in base 2). The applicant has written confusing statements in the instant response @ page 17, lines 21-23 and continuing @ page 18, lines 1-8. If "The chromosome is the equation written in binary code", then how is it that "the digital chromosomes directly become an equation when the zeros and ones of the binary are transformed in to base 10 numbers? This is the kind of statement that has given the Examiner concern that the specification simply does not enable the claims without undue experimentation.

In reference to Applicant's argument:

1. Re difference between variable segments and interaction segments: These are not synonymous. A variable segment deals with only one predictive variable. It contains fields for the optimization of variable selection, outlier trimming, coefficient determination and transformation. In contrast, an interaction segment contains two variables, the mathematical interaction between them (e.g., multiplication, division, difference squared, or absolute difference) and a coefficient. Transformation genes do not allow for outlier trimming or other transformations beyond those carried out in the interaction of the two basic variables. Both variable segments and interaction segments are types of genes.

2. Characteristics for continuity of a variable- Variables are determined to be continuous or categorical based upon the number of unique values that the variable displays as it is read into the analytic data set.

The user has the ability to over-ride default settings for minimum unique values constituting a continuous variable.

3. Boolean selection logic continuous? It is continuous if the variable is allowed in the equation. The majority of variable are likely to be inactive in any given predictive equation. However if the include/exclude gene is turned on then vi variable with a continuous characteristic will receive a coefficient that allows the estimation of a predicted value for all possible input values.

4. How does one set the maximum for an outlier gene? How are minimums handled? The value for trimming on the maximum side is arrived at just as the coefficients, and many other terms active in the equation. This is the process of estimation, testing, crossover and mutation inherent in the genetic algorithm process. Both minimum cutoffs and maximum cutoff values are imbedded in each outlier trimming segment.

5. "Some number of bits represent the exponent to use in the power transformation." Some number of bits map to a table index that tells the equation what the power transformation is. That table offers many possible transformation powers.

6. Page 4 table This table simply illustrates how transformation powers are determined. Specifically, the binary is transformed into decimal. It is then divided by 8 then multiplied by 4 (divides by 8 because in this case it is the total number of values than can be represented by the 3 bits) (four represents the exponent range desired) and then subtract 2 to get then transformation (subtracting half the range to get negative and positive). In the case of binary 100, since the above formula would yield a constant vector of 1, this binary 100 value was assigned the value of the log (x).

7. Outlier trimming on minimum side see answer #4

8. How is log (x) applied to a negative number? The absolute value is taken prior to the log transformation.

9. Line 9 = 8 bits line 10 shows 7 bits Line :LO is a typo, it should show 8 bits as well.

10. Determining Min from max see answer #4

11. Number of bits lines 19-23 page 4 The example is correct the addition in the description is wrong. One bit on off gene, 8 bits outliers (4 max 4 min), 8 bits coefficient, 3 bit transformation =1+8+8+3= 20.

12. Description vs example bit difference. See answer #11

13. What is the coding order of the bits? The coding order is as described on page 4 lines 19-23. The first set of 20 bits represent variable #1, the second set of 20 bits represent variable #2 and the last 20 bits reading from left to right represent variable #3. Together the 60 bit chromosome represents the on/off, outlier trimming, transformations, and coefficients for all three variables. Reading of each variable is: 1' bit = on/off, 2°d through 5`h bits = minimum outlier, 6`h through 96 bits = maximum outlier, 10`h-12'" bits = transformation, 13`h -20'" = coefficient.

14. What is the determining factor for exclusion of a variable, why aren't excluded variables shorter? Variables are included or excluded through the genetic algorithm process that rewards models with higher predictive powers. Thus if a model is created in the iterative process and it has Var #1 turned on (active in the model) and if that model is tested and demonstrates superior predictive power, the Var #1 active flag is more likely to be in the final solution (i.e., be still turned on at the end of the iterative process). Chromosomes do not change size based upon the number of active variables in the model because this

is a dynamic process: and a variable that is off in one generation may be turned on in the next. Therefore it is necessary to leave the chromosome at a fixed length to allow for continued testing of alternative solutions.

15. Page 5 lines 1-15 rational behind setting of trim values. Trim values are arrived at through the optimization process inherent in genetic algorithms. Trimming either too aggressively or insufficiently will yield inferior predictions and will therefore be discarded by the process in favor of more optimal trim values. Variable selection, outlier trimming, transformation selection, and coefficient determination are all simultaneously optimized through the genetic algorithm process.

16. Process does not formulate closure on a unique solution and therefore a process of indefiniteness. There are for all purposes an infinite number of possible predictive models given a large number of input variables. Given the impossibility of examining all possible models, no modeling process can be certain to generate the best model. Like processes that involve quantum physics or processes that include Monte Carlo simulations, there is a degree of uncertainty as to the final product. It is a process to identify very good predictive models as optimal predictive models are impossible to achieve. Genetic algorithm results are replicable however if the computer-clock that is used to generate the random number process is reset to the same start value.

17. Why is the model in this form? This form of model is judged to be the most commercially attractive.

18. Page 7 line 6 "Op" Op stands for operation, i.e., what operation is to be performed on the two variables (Variable 0011 and variable (1101). The operation action is defined in a look up table that includes multiplication, division, absolute difference, addition, subtraction, and absolute difference squared. Additional transformations can be defined by the user and added to this table without altering the structure of the chromosome.

Examiner's response:

The above comments are partial responses to the Examiner's comments related to the Applicants response dated May 17, 2004 (TC 2100 May 21, 2004). The Examiner thanks the applicant for the response albeit further supports the Examiner's comments of p 4 above.

Examination Considerations

12. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in

the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

13. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

14. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

15. Examiner's Opinion: P 12.-14. apply. The claims and only the claims form the metes and bounds of the invention. Limitations appearing in the specification but not recited in the claim are not read into the claim. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

16. Claims 1-5, 7-34, 36-41 and 43-48 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anthony Knight can be reached at (571) 272-3687.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 872-9306 (for formal communications intended for entry);

or faxed to:

(571) 273-3685 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Joseph P. Hirl

March 9, 2005